UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of report (date of earliest event reported): June 4, 2015

TONIX PHARMACEUTICALS HOLDING CORP.

(Exact name of registrant as specified in its charter)

Nevada (State or Other Jurisdiction of Incorporation) 001-36019 (Commission File Number) 26-1434750 (IRS Employer Identification No.)

509 Madison Avenue, Suite 306, New York, New York 10022 (Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (212) 980-9155

Copy of correspondence to:

Marc J. Ross, Esq. James M. Turner, Esq. Sichenzia Ross Friedman Ference LLP 61 Broadway New York, New York 10006 Tel: (212) 930-9700 Fax: (212) 930-9725

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425) Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12) Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b)) Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

ITEM 7.01 Regulation FD Disclosure.

Tonix Pharmaceuticals Holding Corp. (the "Company") intends to utilize an updated investor presentation to conduct meetings with investors, stockholders and analysts and at investor conferences, and which the Company intends to place on its website, which may contain non-public information. A copy of the presentation is filed as Exhibit 99.01.

The information contained in Item 7.01 of this Current Report on Form 8-K, including Exhibit 99.01, is furnished pursuant to, and shall not be deemed to be "filed" for the purposes of, Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section. The information contained in Item 7.01 of this Current Report shall not be incorporated by reference into any registration statement or any other document filed pursuant to the Securities Act of 1933, as amended, except as otherwise expressly stated in such filing. By filing this Current Report on Form 8-K and furnishing the information contained in this Item 7.01, including Exhibit 99.01, the Company makes no admission as to the materiality of any such information that it is furnishing.

ITEM 9.01 Financial Statements and Exhibits.

(d) Exhibits.

99.01 Corporate Presentation by the Company for June 2015*

* Furnished herewith.

SIGNATURE

Pursuant to the requirement of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

TONIX PHARMACEUTICALS HOLDING CORP.

Date: June 4, 2015 By: /s/ LELAND GERSHELL

By: /s/ LELAND GERSHELL Leland Gershell Chief Financial Officer



NASDAQ: TNXP

June 2015

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Cautionary note on forward-looking statements

Certain statements in this presentation regarding strategic plans, expectations and objectives for future operations or results are "forward-looking statements" as defined by the Private Securities Litigation Reform Act of 1995. These statements may be identified by the use of forward-looking words such as "anticipate." "believe." "forecast." "estimate" and "intend." among others. These forward-looking statements are based on Tonix's current expectations and actual results could differ materially. There are a number of factors that could cause actual events to differ materially from those indicated by such forwardlooking statements. These factors include, but are not limited to, substantial competition; our possible need for additional financing; uncertainties of patent protection and litigation; uncertainties of government or third party payor reimbursement, limited research and development efforts and dependence upon third parties; and risks related to failure to obtain U.S Food and Drug Administration clearances or approvals and noncompliance with its regulations. As with any pharmaceutical under development, there are significant risks in the development, regulatory approval and commercialization of new products. The forward-looking statements in this presentation are made as of the date of this presentation, even if subsequently made available by the Company on its website or otherwise. Tonix does not undertake an obligation to update or revise any forward-looking statement, except as required by law. Investors should read the risk factors set forth in the Annual Report on Form 10-K for the year ended December 31, 2014, as filed with the Securities and Exchange Commission (the "SEC") on February 27, 2015 and future periodic reports filed with the SEC on or after the date hereof. All of the Company's forward-looking statements are expressly qualified by all such risk factors and other cautionary statements.



Developing innovative medicines for large and growing markets

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Common and chronic disorders of the central nervous system (CNS)

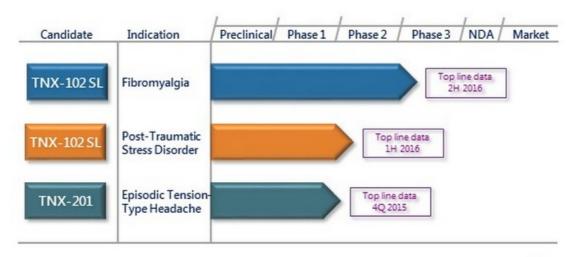
Next-generation medicines with transformative treatment potential

Late-stage candidates supported by human experience

Capitalized to achieve key readouts in all of our clinical-stage programs



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TNX-102 SL (cyclobenzaprine HCl sublingual tablet) and TNX-201 (dexisometheptene mucate) are Investigational New Drugs and are not approved for any indication.



Fibromyalgia: a chronic, multi-symptom disorder that generates frustration for patients and physicians

ad pain fatigue

unrefreshing sleep diminished cognition

Believed to result from amplified sensory and pain signaling in central nervous system¹

chronic widespread pain

Causes significant impairment in all areas of life

Lower levels of health-related quality-of-life – reduced daily functioning Interference with work (loss of productivity, disability)

Inflicts substantial strain on the healthcare

Average patient has 20 physician office visits per year²
Annual direct medical costs are twice those for non-fibromyalgia individuals³

Fibromyalgia is characterized by:

² Robinson et al Pain Mediane. 2013;14:1400.



² Phillips K & Clauw DJ, Best Pract Res Clin Rheumatol. 2011;25:141.

² White et al. J Occupational Environ Med 2008;50:13.

Fibromyalgia is a large market, but remains under-diagnosed...

Affects 2-6% (5-15 million) Americans¹ and typically persists for years to decades

Onset most frequent in the 30's-40's, predominantly in females

Diagnosis rate of 1.1% = 2.7 million U.S. adults → suggests under-diagnosis

Among those diagnosed, 85% receive treatment² = 2.3 million U.S. adults

Approved drugs achieved 2014 U.S. sales of \$1.2 billion in fibromyalgia4

Represents about 5.6 million prescriptions³

Total U.S. market for fibromyalgia (combined on- and off-label usage) is estimated to be > 22 million prescriptions annually^{2,3}

Independent study conducted by IMS Consulting Group, April 2015 using IMS MIDAS (ex-manufacturing price), factored for fibromyalgia based on IMS National Disease and Therapeutic Index (NDTI).

* Product sales derived from IMS MIDAS; IMS NDTI used to factor usage for fibromyalgia; data accessed April 2015.





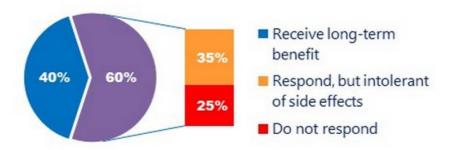
¹ Lawrence et al, Arthritis Rheum 2008;58:26; Vincent et al, Arthritis Care Res 2013;65:786; Jones et al, 2015;67:568.

² Robinson RL et al. Pain Med 2012:13:1366.

...and fewer than half of those treated receive sustained benefit from the three FDA-approved drugs

The treatment objective is to **restore functionality** and **quality of life** by broadly improving symptoms while avoiding significant side effects

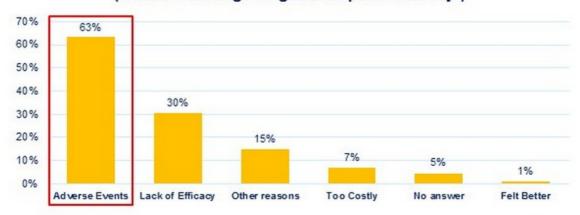
The majority discontinue therapy due to lack of a response or poor tolerability:1



Market research by Frost & Sullivan, commissioned by Tonix (2011). FDA = U.S. Food and Drug Administration

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Reasons for Discontinuation (results from large longitudinal patient survey¹)

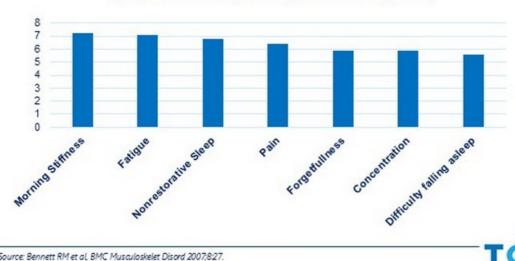


² Robinson et al., Pain Medicine 2013;14:1400.



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Symptom Intensity During Past Week (Mean)



Source: Bennett RM et al, BMC Musculoskelet Disord 2007;8:27.



Pervasive treatment dissatisfaction creates an opportunity for a differentiated therapeutic option

10

High rates of discontinuation, switching and augmentation

Patients cycle through different medications

→ attempt to treat multiple symptoms and/or avoid intolerable side effects

Two or more medications are used simultaneously, on average¹ The typical patient has tried six different medications²

Significant off-label use of prescription painkillers and sleep aids

Large need for new therapies that provide broad symptom relief without a significant side effect burden



² Robinson RL et al, Pain Mediane 2012;13:1366.

² "Patient Trends: Fibromyalgia", Decision Resources, 2011.

TNX-102 SL in Phase 3 clinical development for fibromyalgia

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Advanced sublingual tablet containing cyclobenzaprine (CBP) 2.8 mg

Eutectic formulation rapidly delivers a low dose of CBP

Avoids first-pass metabolism

reduces exposure to long-lived active metabolite

Designed for chronic bedtime administration, no titration

TNX-102 SL demonstrated broad activity and was very well-tolerated in Phase 2b study

Statistically-significant improvements across core fibromyalgia symptoms Systemic tolerability similar to placebo Transient administration site reactions were more common with TNX-102 SL

Tonix approaches the treatment of fibromyalgia by targeting sleep quality

Non-restorative sleep is a common clinical and diagnostic feature¹
Evolving understanding of the role of sleep in pain control and fibromyalgia development²
TNX-102 SL targets CNS receptors believed to play key roles in sleep physiology

Swick TJ, Ther Adv Musculoskel Dis 2011:3:167-178.
 Choy EHS, Nat Rev Rheumatol adv online pub 28 April 2015.



BESTFIT = \underline{BE} dtime \underline{S} ublingual \underline{T} NX-102 SL as \underline{F} ibromyalgia \underline{I} ntervention \underline{T} herapy

Randomized, double-blind, placebo-controlled trial

2010 American College of Rheumatology diagnostic criteria for fibromyalgia

205 participants were randomized 1:1 at 17 U.S. sites

One sublingual tablet of TNX-102 SL 2.8 mg or placebo daily at bedtime for 12 weeks

Evaluated measures of pain, sleep quality, and other assessments of fibromyalgia symptoms

First Patient – First Dose
September 2013
Last Patient – Last Dose
August 2014



BESTFIT: TNX-102 SL 2.8 mg broadly improved fibromyalgia

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Category	Endpoint – week 121	<i>p</i> value
Pain	30% responder analysis ²	0.033
Sleep	Daily Sleep Quality PROMIS Sleep Disturbance	<0.001 0.005
Overall response to therapy	PGIC	0.025
Assessment of disease impact	FIQ-R total score	0.014

¹ Intent-to-treat analysis, N=205 (TNX-102 SL N=103, placebo N=102)

p < 0.05 → statistically significant

BESTFIT pre-specified primary endpoint: change in week 12 mean pains core (p=0.172) PROMIS = Patient-Reported Outcomes Measurement Information System
PGIC = Patient Global Impression of Change
FIQ-R = Fibromyalgia Impact Questionnaire - Revised



Source: Phase 2b BESTFIT study data. TNX-102 SL is an Investigational New Drug and is not approved for any indication.

² FDA-accepted primary endpoint in current Phase 3 AFFIRM study

TNX-102 SL 2.8 mg was very well tolerated in the BESTFIT study

Systemic adverse events reported by at least 3.0% of the total study population	TNX-102 SL, 2.8 mg (N=103)	Placebo (N=101)	Total (N=204)
Somnolence	1.9	6.9	4.4
Dry Mouth	3.9	4.0	3.9
Back Pain	4.9	3.0	3.9

No serious adverse events (SAE) reported with TNX-102 SL

Most frequent local adverse events were administration site reactions

Previously reported in TNX-102 SL Phase 1 studies; no detectable bias on efficacy results Transient tongue numbness (42% TNX-102 SL vs. 1% placebo)

Abnormal taste (8% TNX-102 SL vs. 0% placebo)

Trial completion rates of 86% with TNX-102 SL vs. 83% with placebo

Source: Phase 2b BESTFIT study data. TNX-102 SL is an Investigational New Drug and is not approved for any indication.



Phase 3 "AFFIRM" study of TNX-102 SL is underway

www.affirmstudy.com 15

Randomized, double-blind, placebo-controlled study in fibromyalgia

N = 250

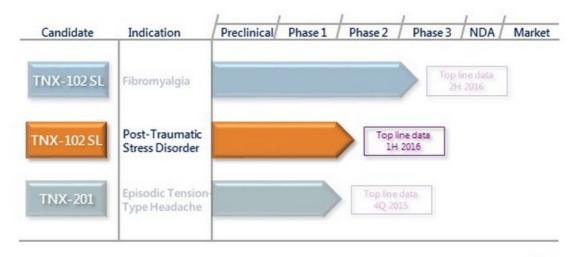
N = 500; approximately 35 U.S. clinical sites

Primary efficacy endpoint:
Difference in 30% responder analysis at 12 weeks between TNX-102 SL 2.8 mg and placebo

open-label extension

Top line data expected 2H16





PTSD = post-traumatic stress disorder TNX-102 SL and TNX-201 are Investigational New Drugs and are not approved for any indication.



PTSD is a chronic disorder following a traumatic event and is characterized by:

re-experiencing the triggering event negative alterations in mood/cognition situation/stimulus avoidance hypervigilance (anxiety, difficulty sleeping)

Considered a stress response, but prolonged and does not resolve with time

Of those who experience significant trauma, \sim 15% develop PTSD (20% of women, 8% of men)¹

Associated with significant life disruption

Social isolation, inability to maintain employment, loss of independent living Unpredictable acts of violence, suicidal thoughts

² Kessler et al, Arch Gen Psychiatry 1995,521048



Affects 3.5% of adult Americans = 8.5 million individuals¹

~70% are considered to have moderate to severe symptoms Of those diagnosed, ~50% utilize professional healthcare (psycho/pharmacotherapy)²

Higher prevalence in military population

20% of veterans from recent conflicts will have potential/provisional PTSD3 ~500,000 veterans are receiving treatment for PTSD in the VA health system (2009)4 Majority are male Alcohol and substance abuse are common

² Report on VA Facility Specific Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn (OND) Veterans Diagnosed with Potential or Provisional PTSD.
⁴ Berndary et al. J Clin Psychiatry 2012;73:297.





² Kessler RC at al, Arch Gen Psychiatry 2013;62617; U.S. Census Bureau, 2013 Projection.

² Wang et al, Arch Gen Psychiatry 2005;62:629.

Medicines for PTSD often provide inadequate and/or inconsistent benefit

FDA-approved medications are limited to two SSRIs, approved > 10 years ago Weak evidence of treatment effect in men1 Lack of evidence of efficacy in those with a history of combat-related trauma² Carry suicidality warnings, require dose titration

Sleep dysfunction in PTSD is resistant to currently-approved options

95%+ report insomnia, 83% report recurrent dreams of the trauma³ Correlated with disease severity, depression, substance abuse and suicide4 Poor sleep quality after trauma may increase the risk of developing PTSD Off-label use of anxiolytics, sedative-hypnotics, opiates, and antipsychotics

2 Marshall et al, Am J Psychiatry 2001;158:1982.

SSRI = selective serotorin reuptake inhibitor

² Jonathan Davidson, personal communications, 2014.
³ Green B. Post-traumatic stress disorder: Symptom profiles in men and women. Curr Med Res Opin 2003;19:200–4.

4 Germain et al, J Anxiety Disord 2005;19:233; Krakow et al, J Nerv Ment Dis 2002;190:442.



TNX-102 SL's potential as a treatment for PTSD is supported by clinical evidence and non-clinical activities

TNX-102 SL targets mechanisms associated with treating disturbed sleep in PTSD

5-HT2A receptor antagonist and reuptake inhibitor (like trazodone)

Alpha-1 adrenergic receptor antagonist (like prazosin)

Trazodone and prazosin receive off-label use to treat sleep dysfunction in PTSD

Fibromyalgia program informs development of TNX-102 SL in PTSD

Improvements observed in Phase 2b BESTFIT study relate to PTSD core symptoms

Outcome Measure at Week 12 in BESTFIT ¹	<i>p</i> value
PROMIS Sleep Disturbance	0.005
FIQ-R Anxiety Item	0.015
FIQ-R Sensitivity Item	0.017

p < 0.05 → statistically significant

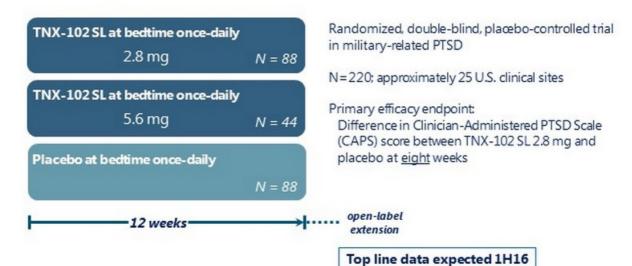


² Phase 2b BESTFIT study data TNX-102 SL is an Investigational New Drug and is not approved for any indication.

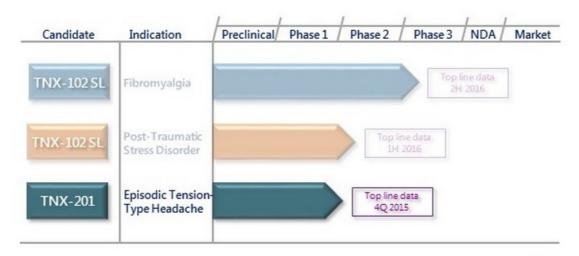


Phase 2 "AtEase" trial of TNX-102 SL in PTSD is ongoing

www.ateasestudy.com 21







TNX-102 SL and TNX-201 are Investigational New Drugs and are not approved for any indication.



75 million adults in the U.S. experience frequent episodic tension-type headaches¹

Constant band of pressure on the back/sides of head; "squeezed in a viœ" feeling "Frequent" = one to 15 headaches per month over a three-month period Approximately 60% receive treatment²

Over-the-counter medications are inadequate for many

10 million prescriptions per year for 'non-migraine' headaches in the U.S.3

All three of the FDA-approved prescription medications contain a barbiturate (butalbital)

Impairs alertness, carries risks of dependence; physically and psychologically addictive Increases the risk that episodic headaches will become chronic "Extended use not recommended" warning in product labels

No new medications introduced for >40 years

Schwartz et al., JAMA 1998;279:381-383; Chowdhury, Ann Ind Acad Neurol 2012;15:83-88; Torix analysis of public literature.

Scher et al., Cephalalgia 2010;30:321-328; Tonix analysis of public literature.

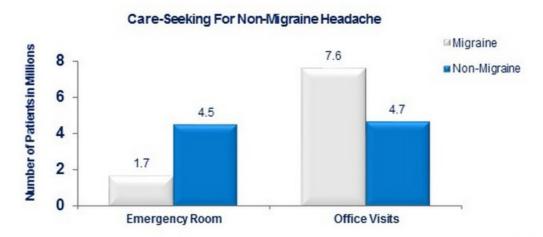
³ Based on independent study conducted by Trinity Partners using IMS National Prescription Audit (8/2013 − 7/142014) and IMS National Disease and Therapeutic Index™ Q3 2008 − Q3 2014.



Patients with ETTH seek medical attention

Non-migraine headaches lead to 9.2 million emergency room or office visits each year

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Health Care Utilization Project data, 2011; IMS National Disease and Therapeutic Index." 2013.



ETTH is the most common type of headache

30% of U.S. adults experience frequent ETTH

25



Episodic tension-type headaches account for approximately:

- · 63% of all headaches2
- · 80% of all non-migraine headaches
 - · "non-migraine" consists primarily of ETTH; > 70% female



² Schwartz et al., IAMA 1998;279381; U.S. Cersus Bureau, 2013 Projection. ³ Stowner et al. Cephalalgia 2007;27(3):193-210.

TNX-201 is a modern form of a medicine with a long history of use

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TNX-201 (dexisometheptene mucate)

a single optical isomer of isometheptene (IMH)

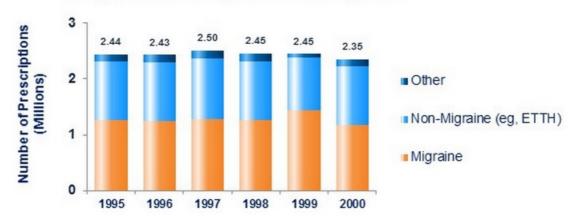
A mixture of IMH optical isomers had been widely prescribed for many decades

"Racemic isometheptene"
was a single-agent medicine (pre-1962)
was a component of combination drug products
Midrin® – NDA withdrawn
Prodrin® – marketed under "unapproved drug category"

No product containing any form of isometheptene is FDA-approved for any indication



Usage of RIC Prescriptions for All Diagnoses

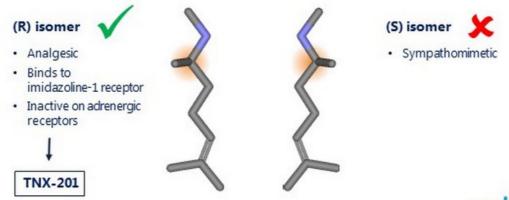


Source: IMS Health, National Prescription Audit, 01/1995 – 12/2000 (extracted 8/2014): IMS Health, IMS National Disease and Therapeutic Index**, 01/1995 – 12/2000 (extracted 8/2014).



Previously marketed IMH drugs contained a mixture of two mirror-image isomers (racemic IMH)

Tonix is developing a single IMH isomer for ETTH, supported by proprietary research





Phase 1 study in healthy volunteers

Single ascending dose study (N=45) – three cohorts of 15 subjects Randomized to TNX-201, racemic IMH, or placebo (3:1:1 ratio, resp.)

	TNX-201 35 mg (N=9)	TNX-201 70 mg (N=9)	TNX-201 140 mg (N=9)	Racemic IMH 70 mg (N=9)	Placebo (N=9)
Subjects reporting ≥1 adverse event, %	22	11	0	11	33

Adverse events reported by TNX-201 subjects all rated as "mild" and most were not study drug-related No subject discontinued due to treatment-emergent adverse events Dose-related increase in TNX-201 plasma levels (C_{max} AUC) No evidence of isomer interconversion





Randomized, double-blind, placebo-controlled trial in episodic tension-type headache

N=200; approximately 10 U.S. clinical sites

Top line data expected 4Q15

A proof-of-concept study to evaluate:

Proportion of subjects who report "pain free" at several intervals post-dose Proportion of subjects who use rescue medication during the 24 hours post-dose Change from baseline in pain severity score at several intervals post-dose

No FDA clinical guidelines on tension-type headache; No ETTH drug approved in over four decades

→ Expect to discuss Phase 3 program design with FDA at End-of-Phase 2 meeting



TNX-201 is active on the imidazoline-1 receptor (I_1-R) : a novel target for the treatment of pain

Characteristics1

Transmembrane receptor Distinct from α₂AR and MAO receptor subtypes No sequence similarity to GPCRs or ATP-sensitive K+ channels Shares similarities to ryanodine and cytokine receptors



Mouse studies²

I1-R null mice show no difference in systolic blood pressure or heart rate compared to wild type

I1-R null mice show a reduction in pain threshold compared to wild type in both the hot plate and tail flick tests

³ Zhang L et al. CNS Neurosci Ther 2013;19978. TNX-201 is an Investigational New Drug and is not approved for any indication.



² Piletz JE et al, DNA Cell Biol 2000; 19319.

Wholly-owned by Tonix with no obligations to others

TNX-102SL

Fibromyalgia, PTSD

Composition-of-matter (eutectic)

Patentsfiled Protection expected to 2034

Pharmacokinetics (PK)

Patentsfiled Protection expected to 2033

Method-of-use

Fibromyalgia: patents issued, 3Q 2020 expiry PTSD: patents filed

TNX-201

Headache

Composition-of-matter (isomer)

Patents filed Protection expected to 2033



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NASDAQ: TNXP		
Cash reported at March 31, 2015	\$ 58.2 million	
Shares outstanding (June 3, 2015)	16.1 million	



Seth Lederman, MD

President & CEO







Leland Gershell, MD, PhD

Chief Financial Officer







Bruce Daugherty, PhD

Chief Scientific Officer





Gregory Sullivan, MD

Chief Medical Officer



New York State Psychiatric Institute

Ronald Notvest, PhD

SVP, Commercial Planning & Development







Seth Lederman, MD	Ernest Mario, PhD
Chairman	ALZA, Glaxo, Reliant Pharma
Stuart Davidson	Charles Mather
Labrador Ventures, Alkermes, Combion	BTIG, Janney, Jefferies, Cowen, Smith Barney
Patrick Grace	John Rhodes
Apollo Philanthropy, WR Grace, Chemed	NYSERDA, NRDC, Booz Allen Hamilton
Donald Landry, MD, PhD	Samuel Saks, MD
Chair of Medicine, Columbia University	Jazz Pharma, ALZA, Johnson & Johnson

Milestones – recent and upcoming

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TNX-102 SL - Fibromyalgia

begain hase 5 An and visited	3	May 2015	Began Phase 3 AFFIRM stud
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☐ June 2015 Present additional data from Phase 2b BESTFIT study at EULAR

☐ 2H 2016 Report top-line results from AFFIRM study

TNX-102 SL - Post-Traumatic Stress Disorder

☑ January 2015 Began Phase 2 At Ease study in military-related PTSD

2Q 2015 Provide update on enrollment and timing of results from AtEase

☐ 1H 2016 Report top-line results from AtEase study

TNX-201 - Episodic Tension-Type Headache

■ December 2014 Completed Phase 1 clinical pharmacology study

2Q 2015
 Begin randomization in proof-of-concept Phase 2 study
 4Q 2015
 Report top-line results from proof-of-concept Phase 2 study

TNX-102 SL and TNX-201 are Investigational New Drugs and are not approved for any indication.



Developing innovative medicines for large and growing markets

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Common and chronic disorders of the central nervous system (CNS)

Next-generation medicines with transformative treatment potential

Late-stage candidates supported by human experience

Capitalized to achieve key readouts in all of our clinical-stage programs





NASDAQ: TNXP

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